AsantéHub 2072 10BaseF Module Installation Guide

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Introducing the 10BaseF Module

The Asanté 2072 10BaseF (fiber optic) repeater module single or double-slotted, plugs into any slot in the AsantéHub 2072 chassis. As a separate repeater/retiming unit, this module continues to function even if another module malfunctions in the same chassis.

This module allows as many as 6 to 12 node connections.

The 10BaseF module has the following features:

- ❏ AUI connector, which can serve as the seventh port for uplinking to the backbone (fourteenth port on double-slot module)
- ❏ Double-slot version provides an AUI port, as well as a recessed MAU slot, which provides connection to the Asanté Mini MAU transceiver
- ❏ Hot swap capable
- ❏ Link/Receive, Partition LEDs display link status for each port
- ❏ Compliant with IEEE 802.3 10BaseF specifications

Figure 1 shows the 10BaseF module, double-slot version.

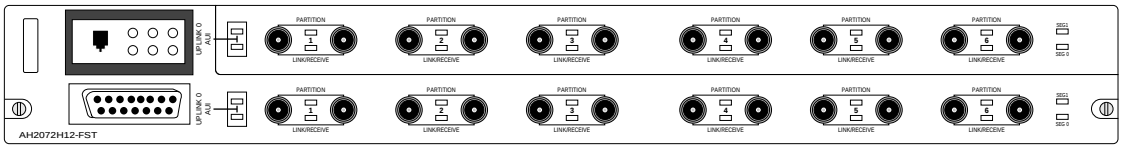

Figure 1 Asanté 10BaseF (Fiber Optic) Module (Twelve -Port, Double-slot)

The 10BaseF module can be assigned to either of the two Ethernet segments or it can remain isolated from a segment for testing or balancing traffic. Fiber cabling is typically used to connect networks.

You can access individual port information through the Network Management Module by running AsantéView's In-Band and or Out-of-Band network management software.

Installation

The 10BaseF module installation consists of a few basic steps:

- ❏ Grounding yourself
- ❏ Checking package contents
- ❏ Installing the module and checking the LEDs
- ❏ Connecting the module to other devices

Grounding Requirements

Before unpacking or handling the module, you must attach the grounding strap provided to discharge static electricity from your body or clothes.The chassis should already be grounded.

Checking Package Requirements

The module package includes the following items:

- ❏ 10BaseF Module in anti-static packaging
- ❏ This installation guide
- ❏ Warranty card
- ❏ Grounding strap

Required Tool

While you can hand-tighten the screws to fasten the module to the chassis, it is recommended that you use a #1 slot screwdriver.

Installing the Mini MAU

To install a recessed Asanté Mini MAU in a double-slotted module, do the following:

1. Unscrew the two ejector screws on each side of the module's front panel and pull out the module approximately four-to-five inches from the chassis.
2. Remove the Mini MAU's filler plate.
3. Insert the Mini MAU by hand-guiding it into its recessed slot until the MAU is securely fastened to its connector.
4. Re-insert the module into the chassis.

Installing the 10BaseF Module

This installation assumes that you have already installed the 2072 chassis.

To install the 10BaseF Module, do the following steps:

1. Make sure the hub is turned on. Having the power already turned on allows the LEDs on the module to immediately light during installation.
2. Observing the antistatic procedures, remove the module from its antistatic packaging.

   ❖ Note: Handle the module only by its edges. Do not touch chips or connectors.❖

3. Align the module to the edges of the card guides to any available slot in the chassis. Gently slide the module in until you can begin tightening the screws. SeeFigure 2 on Page 6.

   ❖ **Important:** Do not force the module into a slot. Forcing the module into a slot can damage the backplane.❖

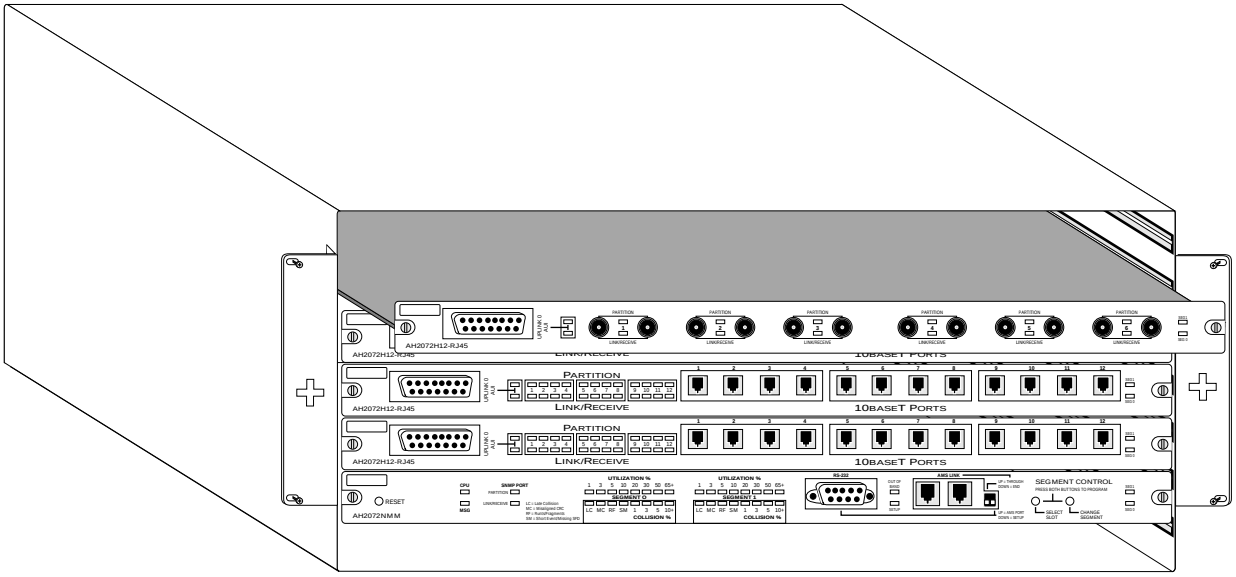

Figure 2 Installing the 10BaseF Module

4 Whether you use your screwdriver or hand-tighten the module to the chassis, make sure you fasten both screws in unison and apply the same amount of torque so that the module attaches evenly to the chassis.

5 Make sure that one of the green segment LEDs lights. This indicates that the module has been properly connected to the backplane and is attached to one of the two segments. (As a default, Segment 1 will light.)

The Front Panel

The front panel displays the following connectors and LEDs:

- ❏ AUI connector
- ❏ AUI Uplink LED
- ❏ Six fiber optic ports (one transmit and one receive connector per port); twelve ports for double-slot version
- ❏ Partition, Link/Receive LEDs
- ❏ Segment LEDs 1 and 2

Figure 3 illustrates the 10BaseF front panel.

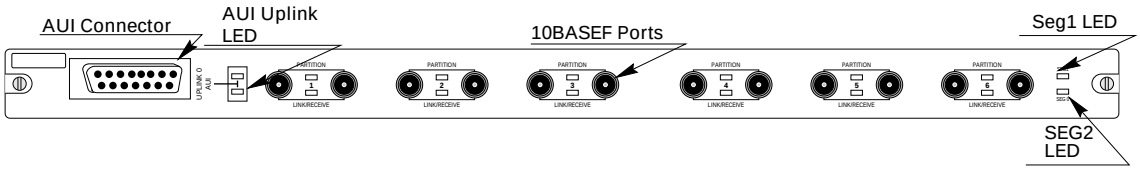

Figure 3 Fiber Module Front Panel

Table 1 identifies the connectors and LEDs and defines their function.

Table 1 Front Panel Connectors and LEDs

Name	Function
AUI Connector **Recessed slot**	Serves as the uplinking port to a network backbone. For the mini MAU, this compartment houses the recessed mini MAU.
10BaseF Connectors	Six or twelve ports; each can be connected to an Ethernet device, including another hub for daisy chaining.
AUI Uplink LED	If active MAU attached, this LED remains lit, indicating that the link is enabled.
Partition LEDs	Six or twelve (double-slot) LEDs, indicating partitioning ports on the module.
Link/Receive LEDs	Six or twelve LEDs, indicating link connection and traffic on ports on the module.
Segment 1 LED **Segment 2 LED**	Remains lit to display which backplane segment (Seg1 or Seg2) the module is currently connected to. Neither segment LEDs light if module is not connected to any of the backplanes, however, the module still function s as an active repeater.

Interpreting the LEDs

The LEDs on the front panel can be categorized into four separate groups:

- ❏ AUI port link/receive
- ❏ Port-by-port partition
- ❏ Port-by-port link/receive
- ❏ Segment configuration

Table 2 identifies the LEDs (starting from the left side of the panel), and their meaning.

Table 2 LEDs and Their Meaning

LED	Color/State	Meaning
AUI Uplink PARTITION LED	Amber, Blinking	Indicates hub has autopartitioned the uplink; possibility of high collision rate.
	Amber, On	Operator has partitioned the uplink.
	Off	Uplink not partitioned.
AUI Uplink LINK LED	Green, On	No traffic over the uplink, or link integrity is disabled.
	Green, Blinking	Traffic over the uplink.
PARTITION 6 or 12 LEDs	Amber, Off,	Indicates normal port operation.
	On, Steady	Indicates that the slot has been manually partitioned by an administrator or by a trap.
	Blinking	Indicates that the module has autopartitioned itself from the network; possibility of high collision rate.
LINK/RECEIVE 6 or 12 LEDs	Green, On	Link is present or link integrity test is disabled.
	Blinking	Traffic is passing over this port.
	Off	Link is not present. Port status is not available if link integrity test is disabled.
SEG1 and SEG2 2 LEDs	Green, On	Indicates which segment the module is connected to.
	Off	Indicates board is not seated properly or both LEDs could be intentionally set off by operator. Note that the repeater still functions for the device that it is attached to but has no backplane connection.

Cable Connections to Other Devices

The 10BaseF module provides two types of connectors for attachment to other devices:

- ❏ AUI for attachment to the backbone and other hubs
- ❏ Fiber connectors (six 10BaseF ports, single slot; twelve 10BaseF ports, double-slot) for attachment to network devices.

Using the AUI to Connect to the Backbone

The AUI port (DB-15 connector) is typically used to interconnect hubs to an Ethernet backbone. The media type used determines the type of external transceiver that is required.

To connect to the backbone using the AUI, attach a MAU such as an Asanté 10T MAU to the AUI port and then connect the MAU to the backbone. See Figure 4.

❖Note: Make sure SQE (Signal Quality Error) is disabled on the MAU when it is attached to the AUI port.❖

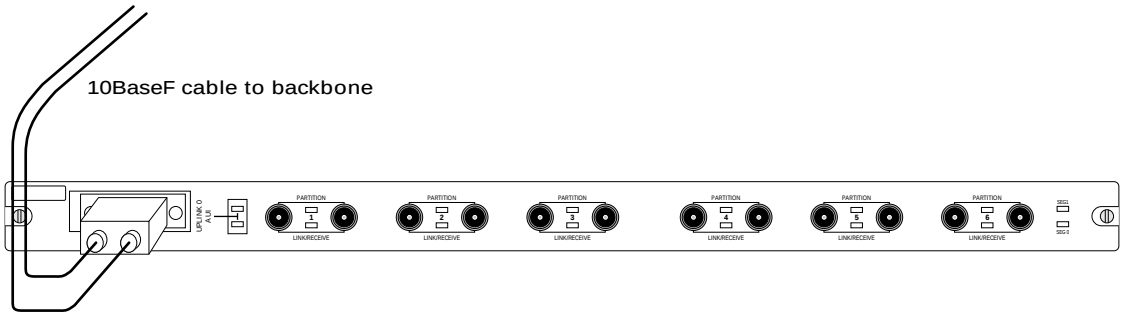

Figure 4 Using the AUI to Connect to the Backbone

Shown here is a fiber connection. You can use any media compatible with the MAU connected to the module's AUI port. Asanté offers Mini MAUs supporting 10BaseT, 10Base2, and fiber media.

Using the AUI to Interconnect Hubs

You can interconnect hubs using the AUI Uplink port located on the module's front panel. Asanté provides an RJ45, BNC, and 10BaseF Mini MAUs, to accommodate your backbone cabling scheme.

To interconnect hubs using the AUI Uplink port, attach a MAU to the AUI port on the first hub. Attach a cable appropriate for the MAU you are using. Attach another MAU to the AUI port on the second hub. Figure 5 shows the interconnection of two hubs using the fiber optic ports of the 10BaseF module (Hub 1) and the AUI Uplink port on a 10BaseF module (Hub 2).

❖ Note: Make sure SQE (Signal Quality Error) is disabled on the MAU when it is attached to the AUI port. When connecting fiber optic cable pairs, make sure you do the following: Connect the remaining end of the transmit cable to a Receive port on the MAU. Using the receive cable, connect the Receive-end of the cable to a receive port on the hub. Connect the remaining end of the Receive cable to a transmit port on the MAU. ❖

The transmit fiber connector on the module's front panel emits a red glow; the receive connector does not. When connecting the fiber cables, if the Link status LED for any connected port is not lit, reverse the receive and transmit leads on that port's cable so that the Link status LED lights.

❖ Note: On the 10BaseF module, the Transmit port is the left port of the fiber port pairs. ❖

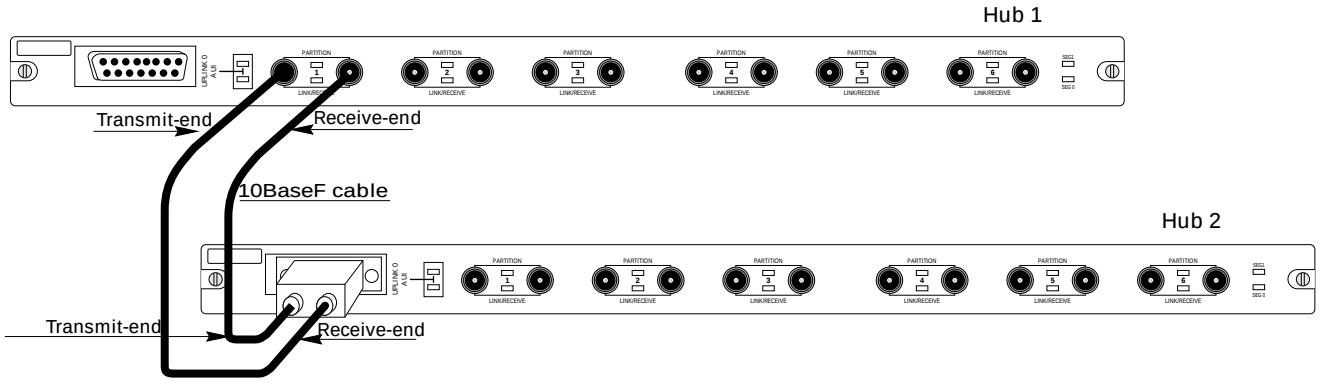

Figure 5 Using the AUI to Interconnect Hubs

❖ Note: Use Asanté Mini MAUs that are appropriate for your backbone cabling type when interconnecting hubs on the same backbone. ❖

Technical Specifications

The 10BaseF Module technical specifications are as follows:

Standards Supported:

IEEE 802.3 Ethernet specifications for fiber (10BaseF) media.

Data Rate:

10 Mbps

Safety:

Designed in accordance with UL,CSA,TUV/IEC requirements.

Physical Dimensions:

Single-slot: 17" x 0.9" x 12"
Double-slot: 17" x 1.8" x 12"

Weight:

Approximately 2 lbs. (single-slot version)
Approximately 4 lbs. (double-slot version)

Environmental:

Operating Temperature: 0° to 40° C ambient
Operating Humidity: 5 to 85% noncondensing
Operating Altitude: 10,000 ft. (3,048m) maximum
Storage Temperature: -30° to 80° C
Storage Humidity: 5 to 90% noncondensing
Storage Altitude: 25,000 ft. (7,620m) maximum

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